



Letter to the Editor

Significance of descriptive statistics in forensic anthropology research



Forensic anthropology typically uses the osteological and/or dental data in establishing the personal identification of unknown human remains. Importance of forensic anthropology research lies in its accuracy, repeatability, and applicability in practical scenario. Descriptive statistics are an integral part of the published research in this regard. Descriptive statistics includes the observations and summaries of the study sample which are usually represented as range, mean, median, standard deviation, standard error, interquartile range and the results of a normality test. These basic details provide important information related to the study sample and may prove to be very valuable for the future researchers.

While going through an interesting article on stature estimation from teeth,¹ we were astonished to see this basic description missing. These details about the stature and tooth dimensions would have given an idea about the population differences for future researchers and if certain results were applicable to other populations. We observe that the correlation coefficients varied between the right and left sides. It would have been interesting to note if the size of teeth varied significantly between sides. Basic descriptive statistics would have given a reasonable idea to these questions.

Stature is known to differ significantly between males and females.² This difference in stature between males and females is associated with the onset and time of maturity.³ For the same reason, reference standards for stature estimation are usually derived separately for males and females. It is not evident if the stature differed between males and females in the study group¹ and so is true for the tooth dimensions. Again basic descriptive statistics would have provided the answers to these questions. It is apparent from the study that correlation between stature and tooth dimensions is derived for males and females together. This probably can be the reason for lower levels of significance and higher errors in estimate. It, however, would be interesting to find if stature correlated equally well with the teeth dimensions among males and females separately.

In cases of unknown remains, sexing of teeth may not be possible and hence, the authors' attempt is praiseworthy. However, basic descriptive statistics can be helpful in defining standards and are a useful source of comparisons for future researchers. The

present correspondence is thus, intended to emphasize on the significance of presenting the descriptive statistics in forensic anthropology research/case work, irrespective of the primary aims and objectives of any study.

Ethical approval

None.

Funding

No support in form of grants.

Conflict of interest

No conflict of interest to declare.

References

1. Prabhu S, Acharya AB, Muddapur MV. Are teeth useful in estimating stature? *J Forensic Leg Med* 2013;**20**(5):460–4.
2. Krishan K, Kanchan T. Stature and build. In: Siegel JA, Saukko PJ, editors. *Encyclopedia of forensic sciences*. 2nd ed., vol. 1. Waltham: Academic Press, [Elsevier, UK]; 2013. p. 49–53.
3. Krishan K, Kanchan T, Asha N. Estimation of stature from index and ring finger length in a North Indian adolescent population. *J Forensic Leg Med* 2012;**19**(5): 285–90.

Tanuj Kanchan, MD, Associate Professor*

Department of Forensic Medicine, Kasturba Medical College, Manipal University, Mangalore, Karnataka, India

Kewal Krishan, PhD, Sr. Assistant Professor

Department of Anthropology, Panjab University, Chandigarh, India

* Corresponding author. Tel.: +91 9448252394 (mobile).

E-mail addresses: tanujkanchan@yahoo.co.in,
tanuj.kanchan@manipal.edu, tanujkanchan@gmail.com
(T. Kanchan).

3 May 2013

Available online 13 September 2013